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Bangladesh
Mid-Term Evaluation
Dhaka Urban Integrated
Child Survival Project (DUICSP)

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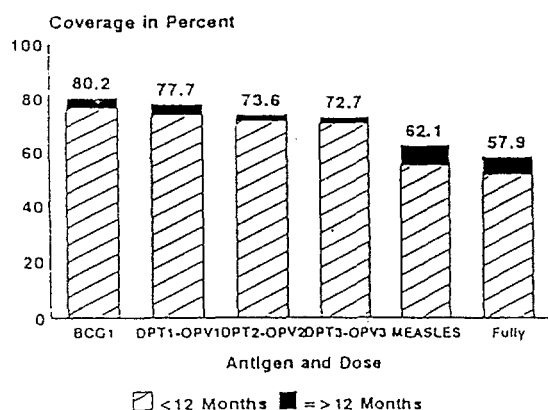
Dhaka Urban Integrated Child Survival Project (DUICSP)

World Vision Bangladesh

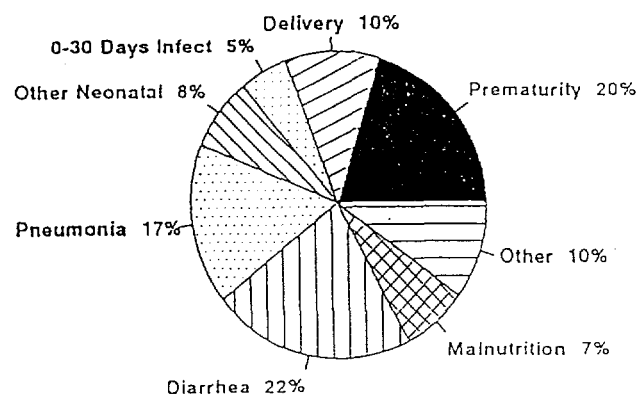
Mid-Term Evaluation - August 17-22, 1996

DUISCP Achievements and Challenges

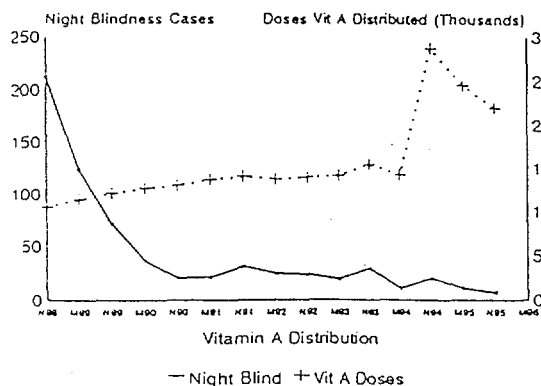
EPI Coverage - 1995 KPC Survey
Dhaka Urban Integrated Child Survival Project



Percent Distribution of Under Five Deaths
Dhaka Urban Integrated Child Survival Project
167 Deaths Investigated with Verbal Autopsy



Night Blindness Prevention
Dhaka Urban Integrated Child Survival Project
Vitamin A Distribution and Night Blindness Cases



List of Acronyms

ADB	Asian Development Bank
ARI	Acute Respiratory Illnesses
BASICS	Basic Support for Institutionalizing Child Survival
BCG	TB Vaccine
BRAC	Bangladesh Rural Advancement Committee
CBDS	Community Based Disease surveillance
CDD	Control of Diarrhea Disease
CDW	Community Development Workers
CV	Community Volunteers
DCC	Dhaka City Corporation
DHS	Demographic and Health Survey
DIP	Detailed Implementation Plan
DPT	Diphtheria Pertussis Tetanus Vaccine
DUICSP	Dhaka Urban Integrated Child Survival Project
EOP	End of Project
EPI	Expanded Program on Immunization
FE	Final Evaluation
FP	Family Planning
GOB	Government of Bangladesh
ICDDR/B	International Center for Diarrhea Disease Research in Bangladesh
IGA	Income Generating
Kintu	Bengali word for weaknesses (however)
KPC	Knowledge practice Coverage Survey
NGO	Non-Governmental Organization
NHC	Neighborhood Health Committee
NID	National Immunization Day
QA	Quality Assurance
OPV	Oral Poliovirus Vaccine
PHN	Public Health Nurse
PVO	Private Voluntary Organization
Sonar Khoni	Bangla Word for Gold Mine
TBA	Traditional Birth Attendants
TG	Target Goal
TT	Tetanus Toxoid
USAID	United States Agency for International Development
VAC	Vitamin A Capsules
WHO	World Health Organization
WV	World Vision
WVRD	World Vision Relief and Development
WVI	World Vision International
WV/B	World Vision/Bangladesh

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Acknowledgment

Over the last 10 days, a national and international team has been privileged to experience in a small way the developmental relevance and outstanding achievements of the Dhaka Urban Integrated Child Survival Program. The team thanks Sylvester Costa and his staff for the excellence of briefings, logistic support, and hospitality. We also acknowledge the time and effort of project staff at the field level and the many volunteers that are making Health for All a reality. Please convey the following letter in Bangla to the community and project partners of DUICSP. We admire your vision, commitment, hard work and achievements.

Mid-Term Evaluation Team
Dhaka Bangladesh
August 27, 1996

Partners in the Dhaka Urban Integrated Child Survival Project

First, we thank you for the excellent cultural event last Friday evening. The presentations of song, dance, music, recitation, and drama were of professional quality and much appreciated. The two dramas deserve special mention as they demonstrated your capacity to convey important messages to your communities. Well done. Over the last 10 days, we have been carrying out the required mid-term evaluation of the DUICSP Project. We have been privileged to meet with many of you to watch your faces, share your stories, and learn of the effective community partnerships that are improving your health.

We would like to share with you some of our findings:

- 1) The DUICSP is providing technically appropriate quality services to the needy of Dhaka City
- 2) A high percentage of the population is receiving essential services like immunization and treatment of illness
- 3) Most of the goals of the project are being met
- 4) A large part of the success of the projects is due to your vision, your volunteer time, and your commitment to improve the health of your people
- 5) However, the team has identified a number of opportunities to strengthen the project. These have been identified in our report. In Bangla, you refer to these opportunities as KINTU.

As many of you know, funding for the project will end in September of 1997. Many of you have expressed concern as to the potential impact of the end of the project on the health of your people. The evaluation team is unanimous in its recommendations that ways need to be found to maintain project momentum. We believe, the project, especially the volunteers, have much to contribute to the future health of your people and urban peoples in Bangladesh. We commend you on your work and thank you for your honest sharing of successes and concerns. You have earned our respect and admiration. Thank you.

DUICSP Evaluation Team
Dhaka Bangladesh
August 26, 1996

Executive Summary

- The Dhaka Urban Integrated Child Survival Project (DUICSP) provides Maternal and Child Health Services to 210,000 people in Dhaka, Bangladesh. An estimated one-third of the population are urban poor living on \$1-2 per day.
- The DUICSP, initiated in 1987, is in its third and final stage of USAID central funding and will terminate September 30, 1997.
- From August 17-27, 1996, a national-international team, facilitated by Professor Stanley Foster of Emory University's Rollins School of Public Health, carried out a mid-term evaluation aimed at identifying "steps that should be taken by the PVO field staff and headquarters for the project to achieve its output and outcome objectives." The evaluation included a 2-day Government-NGO workshop, "Using Data to Improve Urban Health."
- From the perspective of Primary Health Care, as envisioned at Alma Ata in 1978, DUICSP has achieved a remarkable partnership with the community (Neighborhood Health Committees, Focus Mothers, TBAs, and Community Volunteers); project staff; Dhaka City Corporation, and the GOB.
- Structure and services are decentralized to the cluster (400 family) level. Certain services are delivered door-to-door (semi-annual distribution of vitamin A; registration, and health promotion), other services are delivered at collecting points (Polio NIDs and Measles Tetanus Campaigns to immunize defaulters); and others are provided at the four project health facilities (immunization, maternal care and treatment of minor illness).
- Quality of preventive and treatment services was excellent.
- Data collected by the 1995 KPC Survey and HMIS show good progress toward the 16 objectives.
- Observed rates of night blindness and reported cases of disease preventable by immunization have fallen.
- The project has achieved a remarkable degree of ownership by the community with significant inputs in cost recovery and volunteer labor.
- Considering the high percentage of urban poor within the catchment area, it is unreasonable to expect that the project can be financially self sustaining. Two major urban health projects will come on line in the next 24 months: an ADB loan for urban health and an USAID urban health services project.
- **DUICSP is one of the more, if not the most, successful of urban health projects in Bangladesh.** Its value extends far beyond its direct health effects to its success in empowerment at the community level and to its framework as a viable strategic option for urban health.
- The evaluation team identified a number of areas where program strengthening needs to be considered. These include the addition of family planning service, the integration of service delivery, and the rationalization of a burdensome information system to ensure the availability and use of data at the local level. These are detailed in the recommendations on the next page and throughout this report.
- The evaluation team is unanimous in strongly recommending a search for bridge funding to ensure momentum pending new funds coming on line.

Recommendations

Recommendation 1: Project staff and client communities explore strategies to ensure the daily and simultaneous availability of treatment of illness, immunization, maternal care, and family planning at all facilities. Such a review will require an assessment of personnel and facilities to maximize use of resources. Provision of space to community for literacy training should be explored.

Recommendation 2: Given the importance of fertility choice as a human right and the high attributable risk of poorly timed pregnancies (too early, too quick, too many, and too late) to neonatal, infant and maternal mortality, the project explore options to increase access to family planning services. Project explore associating with an NGO providing quality family planning services to facilitate the expansion of the current package of services.

Recommendation 3: Project develop a continuing education curriculum for each set of monthly meetings using a 12-month calendar of major issues. Disease specific subjects should be linked to the epidemiological calendar; e.g., identification of measles susceptibles 9-36 months (Oct-Nov); recognition, referral, and treatment of ARI/Pneumonia (Dec-Jan); prevention and treatment of diarrhea (May-June).

Recommendation 4: Project utilize framework provided during the "Using Data to Improve Urban Health Workshop" to review current HMIS and place priority on systems for which meaningful information is being collected and used. Use data to identify high risk areas for priority allocation of resources.

Recommendation 5: Project be commended for the progress being made in the collection of mortality data. Project utilize locally available technical assistance to upgrade staff and project understanding of the value and use of verbal autopsy data at the community and program levels.

Recommendation 6: Project review its current demands for data collection of CVs and CDWs and, if appropriate, modify procedures to reflect need, understandability, and use.

Recommendation 7: Project management review the current use of the Nutrition Rehabilitation Unit in terms of impact and use of resources.

Recommendation 8: DUICSP implement the new EPI Guidelines for CBDS.

Recommendation 9: Project be commended on its ARI/Pneumonia collaboration with ICDDR/B. Project management meet with the Urban Health Extension Project to share project experience and to explore how the project can better use the "goldmine" (*Sonar Khoni*) of information available from urban research.

Recommendation 10: That World Vision 1) recognize the developmental relevance of its current project to the future of urban health in Bangladesh, 2) reconstitute DUICSP as a local NGO so as to have access to funding, 3) explore bridge funding to ensure continuity until new funding is on line, 4) explore opportunities for funding through the DCC and its ADB loan and the new USAID Urban Service Delivery Project, and 5) that it consider splitting the project with incorporation of the Mohammedpur project into the proposed Dhaka Urban ADP and the promotion of the Kamalapur segment for urban service delivery.

Recommendation 11: The final evaluation of the DUICSP be designed to capture project achievements in terms of progress toward objectives, cost, and developmental relevance. Explore video documentation.

Recommendation 12: USAID acknowledge its privilege of partnership with the DUICSP, that it officially convey to the project and its community partners its admiration for its achievements, and it share this effective humanitarian empowerment use of foreign assistance with USAID-Washington.

Background

The Dhaka Urban Integrated Child Survival Project (DUICSP) provides maternal and child health services to a population catchment area of 210,000 people in Dhaka, Bangladesh. Funded by a Child Survival Grant from the United States Agency for International Development (USAID), the project is being implemented by World Vision Bangladesh through World Vision Relief and Development (WVRD). USAID funding, currently in its third and final phase, will end in September 1997. This report summarizes the findings of a mid-term evaluation carried out from August 17-27, 1996.

The beneficiary population resides in 8 wards of Dhaka City: Kamalapur (Project Area A - Dhaka Wards 30, 84, 85), Mohammedpur (Project Area B - Dhaka Wards 42,43,44), and Mohammedpur (Project Area C - Dhaka Wards 45,46). An estimated one third of the population dwell in urban slums and are categorized as urban poor. Among these urban poor, population turnover rates due to in and out migration are as high as 30% per year. Environmental sanitation is poor. Literacy rates among mothers of children under 2 are low (60%); many mothers work outside the home leaving the care of children to other relatives or older children. Income among the urban poor seldom exceeds \$2 per family per day. Unemployment rates are high.

Mortality data collected in 1991 by the International Center for Diarrheal Disease Research in Bangladesh (ICDDR'B) from urban poor residing in Zone 3 documented an infant mortality rate of 141 per 1000 live births. The 1993-4 Bangladesh Demographic and Health Survey (DHS) estimated an infant and under-five mortality rates for urban areas at 80.9 and 114.3 per 1000 live births respectively. The DHS also documented high rates of fertility (6.57 births to women 40-49).

The project goal is to accelerate the reduction in morbidity and mortality in children under 6 years of age and 15-45 year old women through an integrated strategy of child survival and maternal health (see Table 8).

Evaluation

The goal of the evaluation, as defined by the USAID guidelines dated 3 May 1996, is to identify "steps that should be taken by the PVO field staff and headquarters for the project to achieve its output and outcome objectives by the end of project." Specifically, the guidelines call for an assessment of accomplishments, effectiveness, relevance to development, and sustainability. Members of the evaluation team are listed in Appendix 1, and the schedule of activities is found in Appendix II.

Dhaka Urban Integrated Child Survival Project

Structure

From the perspective of developmental relevance, the DUICSP has established effective working partnerships among the community, the project, other NGOs providing services in the same area, Dhaka City Corporation (the government agency responsible for health), and Government of Bangladesh (GOB) technical programs, e.g., EPI, CDD, & ARI. The success of these partnerships relates in part to the decentralized nature of project implementation (Table 1) and in part due to the individual and collective commitment of those involved in implementation.

Table 1 - Dhaka Urban Integrated Child Survival Program				
Level	Population	Households	Volunteers	Project Staff
Clusters (100)	2000	400	Focus Mothers (slum dwellers) -72 2-3 Traditional Birth Attendants -80 2-3 Community Volunteers -310 1 Neighborhood Health Committee -89	
Compartments (35)	6,000	1,200		Community Development Workers (35)
Areas (3)	70,000	14,000		1-2 PHN 1 CDC 1 Area Coordinator
Project (1)	210,000	42,000		Core Staff 12

Communication is carried out at monthly meetings at the community, cluster, compartment, area, and program levels.

The evaluation team visited all 4 health facilities, discussed the project operations with approximately half the CDWs, and held community meetings in 4 clusters with focus mothers, TBAs, Community Volunteers, and members of the Neighborhood Health Committee. While nothing in this report can fully capture the empowerment achieved in both volunteers and project staff, their self reporting of "what they like about their jobs" (Appendix 3) shares a little of their sense of satisfaction and enthusiasm. This was especially notable among slum mothers and TBAs. Several non-literate focus mothers described articulately how they shared the knowledge of the preparation of "labon-gur" (salt and sugar) for the treatment of diarrhea, their referral of sick children for care, their promotion of 2 years spacing between children, and "no children after 2". Perhaps most remembered will be the sharing of an elderly TBA, who expressed appreciation for her training and the improved skills it had provided, correctly identified the signs for which referral was needed, and her response to a query on the loss of income due to referral, "I am satisfied that she will be safe". She went on to explain her pain (in tears) from the deaths resulting from the inability of her referred patients to obtain admission (inability to pay the demanded bribes). She followed with the plea that, "if safe delivery could be assured, I will die in peace".

Strategy

Project is community based. Each family is visited twice a year by a Community Volunteer or a project Community Development Worker for the purpose of enumeration and health promotion. Certain services, semi-annual administration of Vitamin A, are delivered door-to-door. Accelerated immunization services, the Polio National Immunization Days (NIDs) and the Measles-Tetanus Campaign, were provided at outreach collecting points. Other services such as immunization, prenatal and postnatal care, and treatment of minor illnesses are provided at the 4 health facilities. High coverage of preventive services relates in part to the active identification and referral of cases by the community and the active follow up of defaulters by the facility. This process was most effective at Dhalpur when the PHN provides a list of "left outs" to the CDWs for follow up. A review of the 8 registers showed a high percentage of complete immunization. The intensity and effectiveness of the identification and referral of infants for immunization and pregnant and post-partum women was variable among project areas. This relates in part to the overlying catchment areas.

Although the project carries the name Integrated Child Survival, delivery reflects the traditional strategy scheduling, e.g., one day for immunization, one day for minor illnesses, etc. This balkanization of services is due to a number of reasons including: 1) government registration of family planning providers (1 per area), 2) under staffing at clinics (1 PHN and 1 volunteer), and 3) lack of project staff's recognition of the benefits in terms of increased coverage, convenience, client satisfaction, and efficiency of integrated delivery of services. Availability of the four essential services is variable: 1) immunization (4 of 4); 2) treatment of minor illness (4 of 4); 3) prenatal and post-natal care (2 of 4); and family planning (0 of 4). Project should explore strategies to facilitate the availability of all four services at each facility.

Recommendation 1: Project staff and client communities explore strategies to ensure the daily and simultaneous availability of treatment of illness, immunization, maternal care, and family planning at all facilities. Such a review will require an assessment of personnel and facilities to maximize use of resources. Provision of space to community for literacy training should be explored.

Recommendation 2: Given the importance of fertility choice as a human right and the high attributable risk of poorly timed pregnancies (too early, too quick, too many, and too late) to neonatal, infant and maternal mortality, the project explore options to increase access to family planning services. Project explore associating with an NGO providing quality family planning services to facilitate the expansion of the current package of services.

Linkages

The DUCSP has done an excellent job of networking with administrative bodies and other providers:

- Project area negotiated with and approved by Dhaka City Corporation (DCC)
- Coordinates with DCC Zonal Offices in Service Delivery
- Active participant in NGO Forum
- Coordinates with DCC and Helen Keller International in Vitamin A distribution and night blindness prevention
- Utilizes Aga Khan resources for training of TBAs
- Is effective partner with GOB EPI and USAID BASICS project in immunization and surveillance
- Collaborated with the ARI Subdirectorates in the development of ARI communication materials.
- Working with ICDDR'B in development of ARI/Pneumonia awareness in Kamalapur Area

Quality Assurance

Training

DUCSP has made a major and systematic commitment to training. All volunteer and project staff receive basic and refresher training ranging from 2 days for focus mothers to 21 days (provided by another NGO) for TBAs. Curricula have been developed for each course and are available with the project. Appendix 4 summarizes training carried out in FY95 and FY 96; it documents a major program commitment to training.

Meetings

Attendance at monthly meetings is a condition of service for both volunteer and project staff. Meetings are currently used for the sharing of information and administrative matters. It is probable that these meetings provide the vital link between volunteers and project staff that maintains a sense of commitment to a common vision. Regular scheduled meetings are summarized in Table 2.

Table 2 - DUICSP Schedule of Monthly/Bimonthly Meetings			
Convener	Location	Attendees	Number of Meetings
NHC	Community	5-7	1/month
Cluster	Community	NHC, FM, TBA, CDW	1/month
Compartment	Community	Above + AC, DC	1/Quarter
Area	Area Offices	AC, DC, PHN, CDW	Weekly
Project	Project Office	Core Staff	1/month
	Project Office	Core +AC, PHN, CDW	1/Month

While training courses are well developed with learning objectives and curricula, no plan exists for systematically using the regular meetings for continuing education. This, the evaluation team believes, represents a major missed opportunity.

Recommendation 3: The project develop a continuing education curriculum for each set of monthly meetings using a 12 month calendar of major issues. Disease specific subjects should be linked to the epidemiological calendar, e.g., identification of measles susceptibles 9-36 months (October-November); recognition, referral, and treatment of ARI/Pneumonia (December-January); prevention and treatment of diarrhea (May-June).

Supervision

The evaluation team had difficulty assessing the amount and quality of supervision. There were a number of signs suggesting strong supportive "support-a-vision" at a number of levels including:

- the involvement of NHCs in the selection and oversight of community level volunteers
- the regular meetings of NHCs with volunteer staff
- the regular meetings between volunteer and project staff
- the development and use of an EPI Supervisory Checklist
- the development and use of a Worker Supervisory Checklist
- the monthly interchange between staff at different levels: project and area, area and compartment, compartment and cluster

Quality

The team observed a number of aspects of program operation and found, in most cases, good to excellent quality as indicated in Table 3.

Table 3 - Evaluation Team Assessment of Quality				
Area	Number Observed	Aspects	Good to Excellent	Areas for Improvement
EPI	3 Clinics	Cold Chain	Perfect	
		Sterilization	Perfect	
		Screening and Vaccine Delivery	Good to Excellent to Global Best (SOF)	
		Records	Excellent in 1 of 3	Ineffective use of Registers in 2 of 3
Treatment of Minor Ailment	3 Clinics	Availability of 12 Essential Drugs	Adequate Supplies	
		Clinical Assessment	Good including use of Timer for ARI	
		Treatment	Good use of essential drugs: antibiotics when indicated	
		Client Interaction	Good rapport	
		Client Understanding and Satisfaction (Exit Interview)	Good	
Nutrition Center 1	1 Center	Cleanliness	Very Clean	
		Procedures and Records	Excellent	
Maternal Care	1 Clinic	Patient Flow		Poor with crowding
		Quality of patient examination	Good	

Health Information Systems

Self Assessment

In briefing the evaluation team, project staff identified two HIS problems:

- 1) Project orientation of collecting data in the field for analysis and feedback at central level (lack of use of data at level of collection)
- 2) High rate of turnover of Monitoring and Evaluation personnel.

Systems

The project identifies 18 different forms that are regularly used in program operations; Table 4 provides an analysis of these forms:

Table 4 - DUICSP Forms and Information Systems						
Program Area, Form #, Type Info	Who Collects	Frequency	Level of Analysis	Use at Level of Collection	Use by Project	Team's Assessment of Value
EPI; #09; Temps of Refrigerator and Freezer		2/day 5d/wk	Health Facility	Ensure Vaccine Potency		Essential Required
EPI; #14: Vaccine Stock Register	PHN	Continuous	Health Facility	Obtain Addl. Vaccine	Same Register at Central	Essential Required
EPI; #13: Master Vaccination Register	PHN	EPI Sessions	Dhalpur	Others Not Clear		Effective in identifying and tracing defaulters where major provider of services
EPI; #06; Vacc by Dose & Age	PHN	EPI Sessions	Health Facility	Monthly Report		Required GOB
EPI #17; Supervisory Checklist	AC/PHN/CDW	EPI Sessions	Facility & Project	Assess/ImproveQual	Quality Assess	Excellent ? Improve use of results
EPI; #05; Cases of EPI Diseases	PHN	Minor Illness	Facility Project	Report to EPI		GOB Required; CBDS needed for AFP Surv (see text)
VAC; #03; Doses Vitamin A	CV/CDWs	Biannual Delivery	All Levels	Coverage & Night Blind	Coverage, Impact	Required by GOB
VAC; #15; Register Night Blind	Facility Area	Cases Detected	Cluster, Comp, Area	Monitoring Follow-up		#s Small Excellent Case Management
Minor Ailment: #16	Facility	Dx, Rx, Fees	Facility	Monitor Mon Report	Quality Assess	Little evidence that data used epidemiolog. or program.
DEM #01A: Domiciliary	CV	1-2/yr	Project Manual	Unclear	Unclear	? Most Effective Use CV Time
DEM #01B: Domiciliary	CDW	1/yr	Project Computer	Unclear	Unclear	? Most effective Use of Time
DEM; Annual Census	CV, CDW	1/yr	All	Provide Denominator	Reports	Potential for Analysis Under used
MCH; #02; Pregnancy Register	CV/CDW	Continuous	Cluster	Identify for Referral		Excellent provided used; ?linkage with infant record
MCH; 08: TBA Report	TBA	Monthly	Cluster	Monitor Performance		? Used Fully to Promote Safe Motherhood
MCH; #11, Birth Register	CDW	Continuous	Comp Area	Unclear		Explore potential for combining preg & birth and use of data
MCH; #12; Infant Death Register	CDW	Continuous	Comp	"Calculate IM"		? Utility
Death; #04; Death Investigation Form	PHN	Deaths within 1 mo	Area & Project	Share at Local Level	"Mortality Rates"	Value and Use of Data Not Well Understood
SUPV; #10	PHN/AC	Periodic	All	Assess Perform		? Use for Quality Improvement
Monthly Activity: #18	CDW/PHN/AC	Monthly	Comp Area	Report Activities		Analysis potential under used

Data collection is in excess of that needed or used. Data are not being used effectively at level of collection or at program level.

Recommendation 4: Project utilize framework provided at Using Data to Improve Urban Health Workshop to review current HMIS and place priority on systems for which meaningful information is being collected and used. Use data to identify high risk areas for priority allocation of resources.

Mortality Data

An important achievement of the DUICSP is the development of a system to identify and systematically investigate deaths in children under five and among women 15-44. Deaths are reported by community members, NHCs, CVs, and CDWs to the PHN. Deaths identified within one month are investigated by a PHN or Senior PHN using established verbal autopsy protocols. Individual causes of death are reportedly discussed with those involved to identify strategies to prevent such events in the future. (Understanding of this process was not uniform among project staff). Data are collated annually by age and cause. Results are portrayed graphically and fed back to the area/facility levels. There was little evidence that the death information was being used strategically to strengthen program and impact.

Mortality data reported for October 1994-September 1995 (FY95) and October 1995-June 1996 are summarized in Table 5 and in Figures 1 and 2.

Table 5 -Under 5 Deaths Reported DUICSP Mortality Investigation System - 10/94 - 6/96									
Age	Prematurity	Difficult Labor	Birth Trauma	Asphyxia	Pneumonia	Diarrhea	Malnutrition	Other	Total
0-28 Days	34	2	5	5	7	2	-	18*	73
1-11 Months					23	32	6	9**	70
12-23 Months					4	4	3	1	12
24-59 Months					1	1	3	7	12
Total	34	2	5	5	35	39	12	45	167

* NNT=2, Stillborn = 2, Other= 8, ??? 5

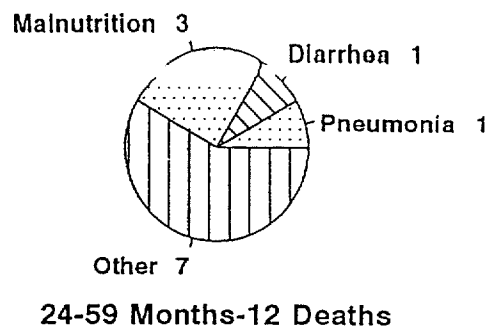
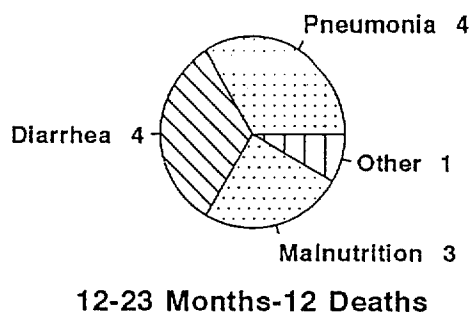
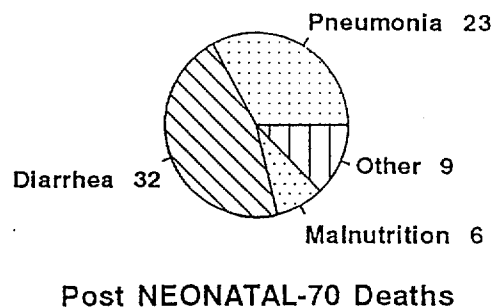
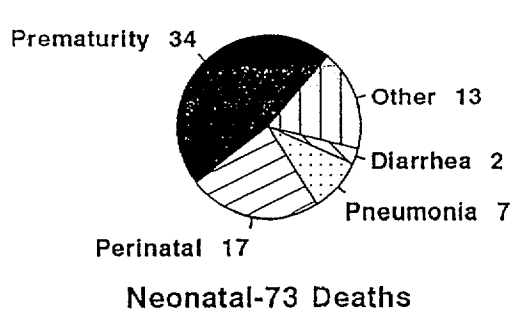
** Other =4, ???=5

There were 25 deaths reported in 15-45 year old women. Liver disease including hepatitis and hepatoma (6), Cardio-respiratory (5), Pregnancy Related (3), Accidents (3), Suicide (2), Abortion (1), Leukemia (1), TB (1), Other (2).

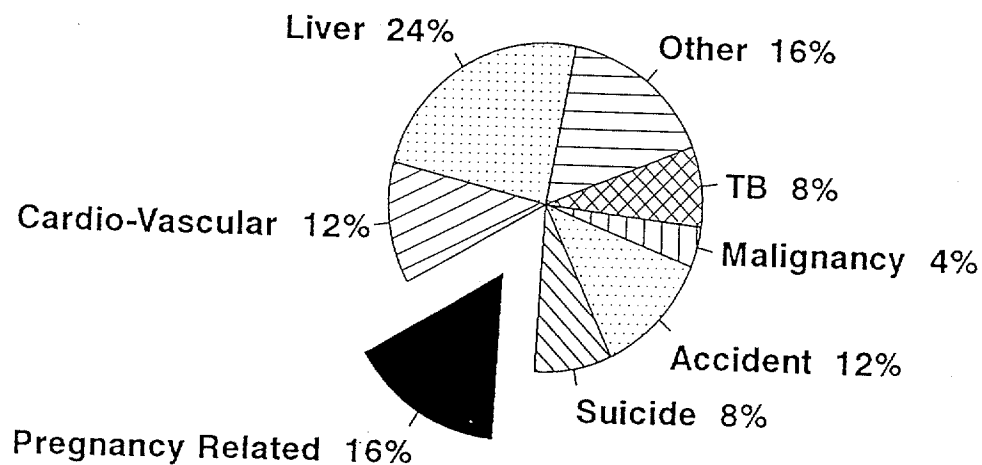
While the percentage of deaths identified and investigated is low (see below), the data are of high quality. The finding that neonatal and post-neonatal deaths are equal, rather than the usual under-enumeration of early infant deaths, supports the concept of representativeness. For a service delivery program, the identification of causes of deaths provides important data for planning at the program level and education at the community level. The evaluation team found little evidence that this "goldmine" (Sonar Khoni) of data was being effectively used.

Several aspects of these data are worthy of comments. Seventy-three of 167 under five deaths (44%) are neonatal and reflect the synergistic interaction of numerous risk factors including adolescent girl undernutrition, pregnancy prior to age of full skeletal development (<18), undernutrition during pregnancy, lack or inadequate prenatal care including TT and identification and referral of high risk mothers, delivery by an untrained attendant, lack of access to quality referral services, and inadequate use of basic neonatal care (airway and warming). From a project perspective, delaying the age of first pregnancy is the most important intervention addressing neonatal and maternal mortality. It also should be noted that most non-

Under Five Mortality by Age and Cause
Dhaka Urban Integrated Child Survival Project
167 Deaths Investigated by Verbal Autopsy 10/94-6-96



Deaths in Women 15-44
Dhaka Urban Integrated Child Survival Project
October 1994 - June 1995



neonatal deaths occur in 1-23 month children. The project priorities of pneumonia and diarrhea are clearly appropriate.

Data Quality and Completeness

Information is meticulously collected, recorded (sometimes in multiple places), collated, and reported. The team found no evidence of false reporting. There was, however (*kintu*), a lack of understanding by project staff as to the completeness of reporting of vital events (estimated at >90%). The actual levels of reporting are significantly lower than this percentage, (see Table 6). These estimates are based on the widely divergent reported rates of fertility, infant, and child mortality reported for urban Dhaka. This variability relates in part to population sampled and methods used. The estimates of completeness are not precise, but do provide the project with the range of current collection of vital events.

Table 6 - DUICSP Estimates of Completeness of Reporting				
Indicator	Reported Rate and Source	Estimated for Project Rate xPop	Reported by Project See Note**	Estimated Completeness
Population	191,480 - May 1996 Project Census			
Pregnancies	30/1000 Pop (est from birth x 1.20)	5800	2002 by pregnancy register	35% (47% for Kamalapur, 18% for Mohammedpur)
Births	25.3/1000 Pop 93-94 DHS	4844	1693 by HH Survey	35%
Neonatal Mortality	43.7/1000 Births 93-94 DHS	211	36 by HH Survey 42/yr by Mort Invest	17% 20%
Infant Mortality	80.9/1000 births 93-94 DHS	392	64 by HH survey 82 by Mort Invest	16% 21%
	141/1000 births ICDDR'B(1991)	681	82 by Mort Invest	12%
Child Mortality	36.3/1000 births DHS	175	14 by Mort Invest	8%
	97/1000 births ICCDRB 1991	468	14 by Mort Invest	2%
Under Five Mortality	114.3/1000 Live Births	552	95 by Mort Invest	17%
Maternal Mortality	550/100,000 LB UNICEF 1993	26	3 by Mort Invest	10%

Note: Reported Deaths October 1994-June 1996 (21 months) were multiplied by 24/21 to estimate 2 year total and divided by 2 to estimate annual number of deaths per age category. Completeness was estimated by dividing reported by estimated and multiplying by 100.

For a service delivery project, detection of individual vital events (pregnancies and births) is important for use at the level of collection. Pregnancies detected need to be referred for prenatal care, TT, and a trained source of delivery. Infants need to be identified for preventive services. Post-partum women need to be identified for family planning education. It is not unexpected that the rate of detection of pregnancies in Kamalapur(47%), where the project is the main provider of services, was higher than Mohammedpur, (17%) where other providers are active. Hopefully, the community and the project will work together to assess ways to increase the identification and referral of pregnancies and infants.

As part of the evaluation, death investigation forms for under fives and 15-44 women were independently assessed for cause by a pediatrician (Dr. Milton Amayun). The results of these comparisons are summarized in Appendix 5. There is a high degree of concordance between the diagnoses of project staff and the independent reviewer.

Recommendation 5: Project be commended for the progress being made in the collection of mortality data. Project utilize locally available technical assistance to upgrade staff and project understanding of the value and use of verbal autopsy data at the community and program levels.

Understanding and Use of Data

Several principles underlie the effective collection and use of data:

- Each level (cluster, compartment, area, and project) has its own unique needs for data
- Persons collecting data should understand reason for collection and how data will be used to make a difference
- Initial collation, analysis, and use of data should be at the level of collection and not be sent up the line to the Monitoring and Evaluation unit for analysis
- Use of data should justify the work involved in its collection, collation, and analysis
- Transmission of data from one level to the next should be limited to that which is needed, used, and responded to.

Monitoring and Evaluation unit has three major responsibilities:

- Feeding back the data that is understandable and has program relevance to the individuals that collected the data
- Compile data in a format that can be used by project management for monitoring and planning
- Summarize data in format needed for project reporting

While a full in-depth analysis of the reporting systems is beyond the scope of this evaluation, two examples exemplify effective and non-effective use of data:

At Dhalpur, all vaccinations given are recorded in a standard register (currently 8 volumes). At regular intervals, the register is reviewed and a list of "left outs" is prepared for distribution to CDW and CVs for follow up. If a card is lost, the mother is asked for the date of first immunization, the register is searched, and a new card prepared. In an inspection of 3 registers, approximately 80% of children were fully immunized. In another clinic, admittedly in an area where there are multiple providers of immunization, the register is perfunctory, incomplete, and unused.

Significant amounts of CV and CDW time are spent in three separate data collection activities (Form 1a - CVs tabulated manually, Form 1b - CDWs tabulated by computer, and the Annual Registration tally sheet). Only the third set of data appeared to receive any attention at the project level. While the enumeration data appeared creditable, the 6 month recall data are clearly an underestimate and probably not worth the effort involved.

Recommendation 6: Project review its current demands for data collection of CVs and CDWs and, if appropriate, modify procedures to reflect need, understandability, and use.

Recognizing the difficulty of collecting retrospective information (even difficult for skilled full-time trained interviewers), collection of point prevalence data will be easier and more valid. Consideration should also be given to developing an epidemiologically relevant systematic approach to the collection of data for action. Table 7 below is meant to be illustrate and not prescriptive.

Table 7 - Systematic Approach to Quarterly Visits				
Time	Information Collected	Service Provided	Health Education	Identification and Referral
September-November	Maternal Health Date last Birth Who Delivered Alive/Dead If Dead - Name and Age Months Pregnant(yes/no)		Immunization	Pregnancy; 9-35 month children with no measles vaccine;
December-February	Infants <2 Age in Months Fed Yesterday Breast Only Breast and Solids Solids Type	Vitamin A 1-6 years old	ARI/Pneumonia	Pregnancy; Night Blindness Cases Detection of ARI/Pneumonia
March- May	Pregnant Yes No If No Contraceptive Yes No Type		Family Planning	Pregnancy Refer for Family Planning
June-August	Enumeration of Population -	Vitamin A 1-6 year old	Prevention and Treatment of Diarrhea	Pregnancy; Night Blindness Cases

Progress Towards Objectives

The Detailed Implementation Plan (DIP) dated 31 March 1995 lists 16 End of Project (EOP) Coverage Objectives. In urban areas, where there are multiple providers of services, the KPC survey provides data on the population served not the project's contribution to that coverage. For example, the DUICSP is essentially the only provider of the semi-annual distribution of Vitamin A; thus the Vitamin A coverage is a true measure of program activity. In contrast, as DUICSP family planning activities are primarily promotive; the contraceptive prevalence levels are less attributable to program activities.

This evaluation team has decided to base its assessment on progress toward objectives through use of routinely available project information. While such information has limitations in terms of utilizing field worker visits and service statistics, it illustrates the ongoing use of data essential to good program management and sustainability. Data were identified for 10 of the 16 indicators. Table 8 summarizes the baseline and 1 year KPCs and the estimates of project coverage from routine project information. A KPC Survey will be done at the end of the project and will address methodological weaknesses inherent in the current KPC Survey protocol, e.g., inadequate number of 12-23 month children.

Table 8 - Progress Toward Objectives

SL.. #	END OF PROJECT OBJECTIVES	B/LINE SURVEY (10/94)	* KPC SURVEY (8/95)	FY-96		
				CDW	CV	TG
01	70% of children (12-23 months) will have received full immunization coverage (card) by age 12 months with BCG, DPT3, OPV3 and measles vaccines	N=70 D=136 P=51.1%	N=73 D=117 P=62%	N=1789 D=2752 P=65% [@]	N=1517 D=1846 P=82.1% [@]	60%
02	60% of mothers (15-45 years) will have received two doses of TT vaccine (card) before the birth of her youngest child less than 24 months of age	N=120 D=300 P=40%	N=132 D=300 P=44%	N=7654 D=17008 P=45%	N=6438 D=18896 P=34.1%	50%
03	60% of mothers of children less than 24 months who desire no more children in the next two years, or are not sure will be using a modern contraceptive method	N=137 D=273 P=50.1% **P=56%	N=142 D=275 P=51.6%	N=3742 D=6452 P=58%	N=4281 D=8077 P=53%	55%
04	40% of mothers will have had at least two antenatal visits (card) prior to the birth of her youngest child less than 24 months of age	N=98 D=300 p= 33%	N=99 D=300 P=33%		N=523 D=1091 P=47.9% ^{@1}	30%
05	45% of deliveries in the last 12 months would have been attended by a trained person	N=231 D=300 P= 77%	N=117 D=191 P=61%			30%
06	50% of mothers who delivered in the last 12 months would have received a card-documented vitamin A doses within two weeks after delivery	0%	N=22 D=191 P=11.3%		N=427 D=1091 P=39% ^{@1}	45%
07	60% of children less than 12 months would have received appropriate card-documented doses of vitamin A at each EPI (immunization) contact	N=23 D=163 P=14%	N=93 D=183 P=50.2%	N=1775 D=2644 P=67.5% ^{@2}		50%
08	70% of children 12-71 months would have received appropriate doses of high-potency vitamin A capsules (card) bi-annually	--	*** 96%	P=96% ^{@3}		60%
09	50% of mothers sought treatment for their infant/child (less than 24 months) with cough and rapid breathing in the past two weeks	N=30 D=30 P=60% **P=70%	N=7 D=11 P=63.6%	N=38 D=55 P=68% [@]	N=39 D=43 P=90% [@]	40%
10	80% of infants less than four months are being exclusively breastfed	N=16 D=64 P=25%	N=23 D=54 P=42.5%			70%
11	85% of children between five and nine months, are being given solid or semisolid foods	N=34 D=42 P=80%	N=51 D=65 P=78.4%			75%
12	85% of children between 20 and 24 months, are still breast-feeding (and are being given solid or semisolid food)	N=16 D=39 P=41%	N=32 D=44 P=72.7%			75%
13	90% of infants/children less than 24 months of age with diarrhoea in the last two weeks were treated with ORT	N=32 D=40 P=80%	N=40 D=48 P=83.3%			80%
14	75% of infants/children less than 24 months of age with diarrhoea in the last two weeks were given the same amount or more breastmilk	N=35 D=40 P=87.5%	N=40 D=48 P=83.3%			65%
15	75% of infants/children less than 24 months of age with diarrhoea in the last two weeks were given the same amount or more food	N=22 D=40 P=55%	N=34 D=48 P=70.8%			65%
16	75% of infants/children less than 24 months of age with diarrhoea in the last two weeks were given the same amount or more fluids other than breastmilk	N=30 D=40 P=75%	N=35 D=48 P=72.9%			65%

- * First year achievement (Knowledge, Practice and Coverage Survey '95)
- ** Numerator number was miscalculated.
- *** Service statistics of bi-annual VAC administration
- @ Domiciliary Visit (Variable: Immunization is up to date)
- @1 Pregnancy Register
- @2 EPI Session
- @3 Door to door visit + National Immunization Day

Maternal Health

DUICSP has made major contributions to maternal health in several areas:

- training of TBAs
- identification of pregnant women and referral to facilities for TT immunization
- provision at some, but not all facilities, prenatal and postnatal care
- utilize community contacts to promote child spacing and family planning

The evaluation team was very impressed by the level of TBA empowerment achieved by the project. TBAs questioned answered technical questions (indication for high risk referral correctly) and described how the training had improved the quality of their work, their own self esteem, and their esteem in the community. One TBA proudly reported an additional 300 Taka (\$7.50) honorarium from her client in recognition of the excellent care.

In view of the absolute priority of appropriately timed births to maternal and child health and child survival, family planning services need to be available as part of the integrated child survival package. Recognizing the difficulties encountered in getting approval as a provider of family planning services, alternative approaches to bringing family planning into the program need to be explored. Partnership with an organization providing family planning services in the project area should be considered. (See Recommendations 1 and 2).

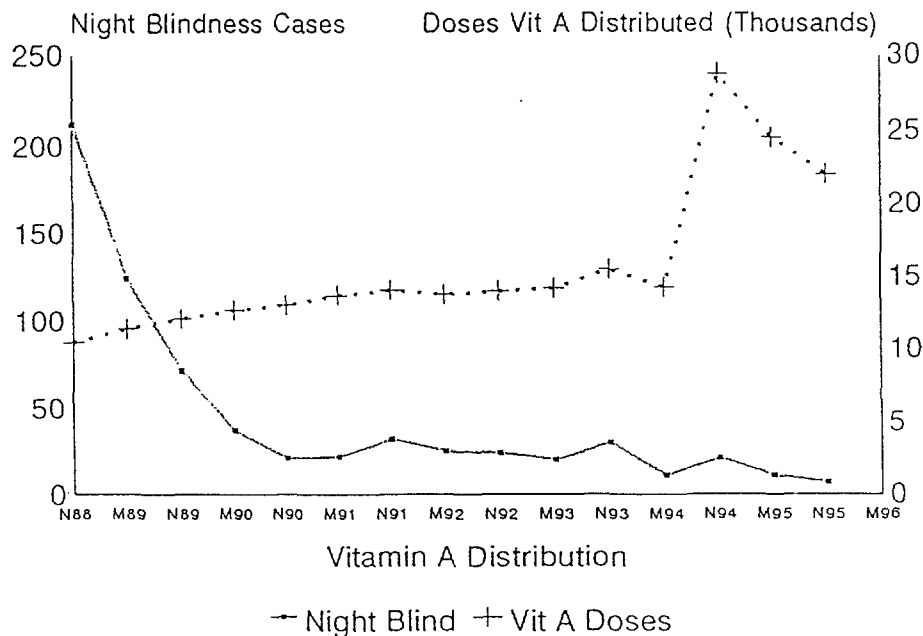
Nutrition

Project impact is best documented in the area of prevention of Vitamin A deficiency night blindness and associated mortality risk. Project activities in Vitamin A include:

- semi-annual house to house distribution of 200,000 units of Vitamin A to all children 1-6 years of age
- administration of 25,000 units of Vitamin A at the time of EPI administration (DPT, DPT3, and measles)
- administration of 200,000 units Vitamin A to post-partum women within 14 days of delivery
- treatment of night blindness cases with 200,000 units on days 1,2, and 14
- administration of 200,000 units to recovering measles, pneumonia, diarrhea cases

The effectiveness of this program is clearly documented by the reduction in night blindness shown on Figure 3.

Night Blindness Prevention Dhaka Urban Integrated Child Survival Project Vitamin A Distribution and Night Blindness Cases



Malnutrition is endemic among the urban poor dwelling in the project area. This malnutrition reflects the synergistic interaction of multiple risk factors including:

- poverty
- poor environmental sanitation
- ill timed births and maternal depletion
- frequent infections especially diarrhea and pneumonia

Recognizing the above limitations, the community partnerships provides a mechanism for promotion of appropriate nutrition behavior including:

- immediate and exclusive breast feeding
- introduction of supplemental foods at 5 months (150 days)
- feeding as a part of treatment of acute and chronic illness

The project has over the years maintained a nutrition rehabilitation center at one of its health facilities in Mohammedpur. Children identified as severely malnourished, (<70%weight for height), are provided day care with 5 supplemental feedings. Over the last few years the average number of patients has fallen (4 during our visit). This relates in part to the increased employment opportunities for women and their inability to bring malnourished children to the clinic. We could not uncover data to estimate the long term benefit of this treatment. In a project with limited resources, management needs to reassess the allocation of resources to this activity.

Recommendation 7: Project Management review the current use of the Nutrition Rehabilitation Unit in terms of impact and use of resources.

Immunization

Routine Immunization

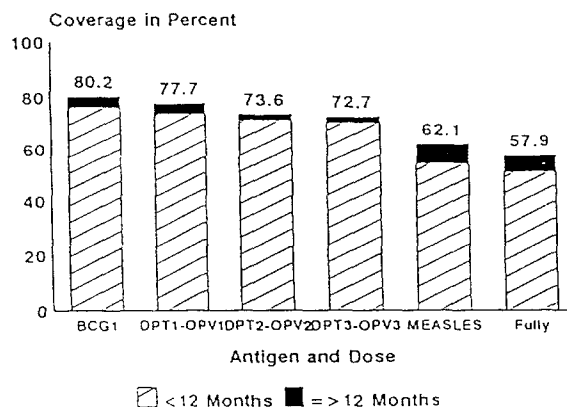
EPI vaccines are administered according to GOB scheduled two times a week at each of 4 clinics. This includes BCG, DPT, OPV, and Measles for infants and TT for pregnant women and women of child bearing age. Utilizing reported figures for vaccination, it is possible to estimate coverage provided to the project area (see caveats listed under progress toward objectives), Table 9:

Table 9 - Estimated Immunization Coverage by Project Area										
Area Pop Doses Cov			DPT1 (Cov)		DPT3 (Cov)		Measles (Cov)		TT2 (Cov)	
Area	Pop		FY95	FY96*	FY95	FY96*	FY95	FY96*	FY95	FY96*
A	1995	D	1825	1629	1478	1261	1723	1215	1345	1067
		C	91.5	81.7	74.1	63.3	83.4	60.9	67.4	54.0
B	1561	D	691	554	535	483	493	423	209	280
		C	44.3	35.4	34.3	31.0	31.6	27.1	13.4	17.9
C	722	D	349	194	319	350	306	265	149	97
		C	48.3	26.4	44.2	48.5	42.3	36.7	20.5	13.4
Total	4236	C	2865	2377	2332	2094	2522	1903	1703	1444
		C	67.6	56.1	55.1	49.4	59.5	44.9	40.2	34.1
FY95 KPC			77.7		73.6		62.1			
%WV			87		75		96			

* FY96 data covers the first 10 months of the year.

Comparing the above estimates of project EPI coverage from service statistics with that obtained from the 1995 KPC Survey, Figure 4 below, provides a crude estimate of the project contribution to total coverage (a question raised by one of the stakeholders).

EPI Coverage - 1995 KPC Survey
Dhaka Urban Integrated Child Survival Project



Several activities have been carried out to improve the quality of EPI services including:

- Use of checklists to assess quality of EPI performance. Scores ranged from 65% to 100%. 14 of 20 indicators had scores higher than 95%. Only one indicator was less than 84% (checking TT status of mother of child being immunized).
- Missed opportunities surveys were carried out from January to June 1996. For children <5, the rate was 13.6% (4 of 6 due to overcrowding) and for women 15-45, the rate was 25.5% (5 of 11 related to workers refusal to screen because mother didn't have card and 5 of 11 due to overcrowding). It is not clear how these data were used to improve EPI program performance.

Measles Neonatal Tetanus Campaigns - Fall 1995

DUICSP participated in the Measles Neonatal Tetanus Campaigns carried out in high risk areas in the fall of 1995. Left outs were identified by door-to door enumeration and referred to special outreach centers. Campaign provided vaccine at 29 sites in Kamalapur and 16 in Mohammedpur and involved 87 mobilizers, 19 vaccinators, and 8 supervisors. Results are summarized in Table 10.

Table 10 - DUICSP Achievements - Measles Tetanus Campaign, October 1995			
Antigen	Eligible	Received	Coverage
Measles 9-23	300	278	92.7%
Tetanus Toxoid	4021	3574	88.9%

National Immunization Days 1995 and 1996

DUICSP was allocated responsibility for 1995 and 1996 NIDS in 8 wards of Dhaka City. Results of these four rounds are summarized in Table 11.

Table 11 - DUICSP Participation in NIDS 1995 and 1996				
Indicator	1995		1996	
	1st	2nd	1st	2nd
Total # Sites	108	100	83	82
Children <5	28,954	25,563	21,369	21,085
OPV	26,184	25,109	20,718	20,382
Percent Coverage	90.4	98.2	97.0	96.7
Vitamin A		24,084		17,380
Percent Coverage		97.2		97.6
CV Vaccinators	216	297	243	328
Mobilizers (CV, NHCs, TBA, FMs)	324	297	243	328

A lessons learned report summarizes the program:

- "With the last two years' success of the NIDs, EPI has done a tremendous effect to gain confidence from the general people throughout the country
- NHCs, CVs, FWs, TBAs were found very active
- Community participation has no doubt been encouraging presenting a meaningful NID with optimum responses from the local people
- Left out and dropout children were administered OPV on the next day at the fixed centers. Most working mothers have taken this opportunity."

Disease Impact

The only component of EPI that needs strengthening is that of surveillance. Two approaches may be used to assess the impact of the program on disease, the reports of disease incidence and the death reporting. Table 12 below summarizes cases of EPI disease for the years 1988-1995.

Table 12 - Reported Cases Of EPI Disease - DUICSP 1988-1995			
Year	Neonatal Tetanus	Polio	Measles Cases/Deaths
1992	1		7
1993		2	13 (3)
1994			12
1995			10
1996 thru July	3		6 (1)

A second approach to assessing EPI impact is to look at trends in the percent of deaths from three different sources, Table 13.

Table 13 - Proportion of Infant, Child, and Under Five Deaths due to EPI Diseases				
Source	Year	Deaths	% NNT	% Measles
ICDDR'B Longitudinal Surveillance	1991		19.3	5.4
DUICSP Neonatal Death Survey	1992	32	9%	
DUICSP Death Surveillance	FY 95- 96	73 Neonatal	2.7%	
DUICSP Death Surveillance	FY 95-96	167 <5 76 <5		0.6% 4%

Both sets of data are consistent with the coverage predicted reductions in morbidity and mortality.

Achievement of polio eradication will, however (KINTU) require the establishment of community based disease surveillance (CBDS) for Acute Flaccid Paralysis. New guidelines will be available by the end of the August 1996. DUICSP will be an important partner in the implementation of these guidelines. Existing community project linkages should facilitate this introduction.

Recommendation 8: DUICSP implement the new EPI Guidelines for CBDS.

Diarrhea

As the birthplace of Oral Rehydration (Dhaka SEATO Cholera Research Laboratory now ICDDR'B) and as the locus of one of the world's premier treatment centers for diarrheal diseases, it is not unexpected that there are high rates of knowledge of appropriate family response to diarrhea in children. As both the baseline and first year estimates of ORT use in children under 2, 80 and 83% respectively, exceed the project target of 75%, this evaluation did not explore diarrheal treatment in depth. Community volunteers and project staff exhibited good knowledge on the mixture and use of ORT, both labon-gur (salt and sugar) and ORS. The increase in the percent of diarrhea cases receiving same or more food between the baseline and the first year KPC, 55% and 71% respectively is encouraging. However (KINTU), project

should not be overconfident on the application of ORT in treatment of childhood diarrheas. Continued vigilance including simulations are needed to assure that the knowledge is being correctly applied at the household level.

Pneumonia

As noted in the section on mortality above, pneumonia is a major cause of under five mortality, especially infant, mortality. WHO algorithms for the assessment of ARI including the use of timers were observed at the minor illness clinics. Therapy was appropriate including restricting the use of antibiotics to children meeting the clinical definition.

The major challenge to ARI/Pneumonia programs is the early recognition and referral of children with rapid breathing and chest in drawing for clinical evaluation. The project deserves commendation for the partnership developed with ICDDR'B to assess maternal knowledge and practices related to ARI and to develop educational strategies to improve mothers awareness and action.

In the context of DUICSP/ICDDR'B collaboration, there was little evidence that the important theoretical and practical data collected by the ICDDR'B research project in Zone 3 is being effectively conveyed to and utilized by DUICSP project management.

Recommendation 9: Project be commended on their ARI/Pneumonia collaboration with ICDDR/B. Project management meet with the Urban Health Extension Project to share project experience and to explore how the project can better use the "goldmine" (Sonar Khoni) of information available from the urban research.

Referral

Project utilizes a number of referral sites including Azimpur Maternity, Mohammedpur Fertility Center, Dhaka Shishu Hospital (Pediatrics), ICDDR/B (Diarrhea), Dhaka Medical College, National Medical College, and Suharawardy Hospital. Reports of the quality of services ranged from fair to good. The absence of feedback was identified as a major problem. Use of a two page referral slip is being used by some NGOs with some success.

Response to Stakeholder's Questions to Evaluation Team

Prior to the evaluation, five groups of stakeholders (community, project staff, GOB/NGO Forum, DCC, and USAID) were queried as to questions that they would like addressed by the evaluation team. While some of the questions are beyond the scope of the project, the evaluation team has addressed each of the queries in Table 14.

Table 14 - Evaluation Team's Response to Stakeholder's Queries		
Source	Question	Response
Community; CCC, NHC, CVs, FMG, TBA	Whether project can address and support safe water, sanitation, and environmental issues through project.	Water and sanitation are beyond the scope of the project funded by USAID. Project can, however, work with community to assess needs and help identify appropriate self-help or advocacy channels to appropriate bodies.
	How can community support integrated development addressing literacy, drug addiction, water and sanitation, and income generation?	The evaluation team was impressed by the individual and community empowerment that has resulted from the partnership within the child survival program. The nature of these questions indicate a readiness for community identification and resolution of more complex development issues. For example, project facilities could be utilized for literacy training programs put on by the community. Drug addiction, on the other hand, requires outside expertise. Project can work with community to identify such resources.
GOB/NGO Forum	Whether referral linkages are working effectively to ensure service delivery?	The evaluation team received repeated reports of referred patients not being accepted in part because of the inability of the poor to provide fees or bribes. This is an issue that the forum needs to take up directly with the government. The first step would be to assess and follow-up 50-100 referrals.
Project Staff	How the lessons learned and skills of the project staff would be utilized after project phase-over?	The project as currently constituted will end in September 1997. However (KINTU) the achievements of the DUICSP provide a rare example of urban community empowerment in CS in Bangladesh. The challenge for the project is to assess the new directions and new opportunities that are projected for health in Dhaka and to market itself as a viable effective strategy (see sustainability below).
Dhaka City Corporation	What is the actual achievement of the project on CS where other NGO's and mass media are active in the impact area?	In an area where there is overlap between government and various NGO's in providing services, it is difficult and sometimes impossible to disaggregate the contributions of the partners. As utilized in this evaluation, project service statistics estimate component coverage. For the project, the attributable coverage ranges from low for family planning, to moderate for EPI (See Table 9), to near total for Vitamin A and NIDs.
	How can the community-based Integrated Health Care package be introduced for the high risk community people?	Project has achieved considerable success in establishing effective working partnerships between the project and the community in promoting child survival. Two additional suggestions merit consideration: 1) preferential location of facilities proximate to areas of need (not so for all project facilities) and 2) altering level of community input so as to maximize inputs to areas of greatest need.
USAID	Whether recipients are satisfied with the services that they receive from the project?	Exit interviews of clients receiving service were uniformly good to excellent. This was confirmed by direct observation of provider client interaction. Problems were only noted in areas where facilities were not being used maximally to promote good flow, e.g., setting aside a large room with two doors for conference and conducting services in a small room with only one entrance.
	Where do they normally go when sick?	This question is beyond the scope of the project and requires systematic qualitative and quantitative research. Answers to this question are available from the ICDDR'B project in Zone 3.
	Who makes decision to seek treatment for sick children and women in the family?	Same as above
	If you need to pay for health care services and medicine (for women and children) who makes decision?	Same as above

Urban Health in the 21st Century and the Relevance of the Dhaka Project

Urban Health is the "major challenge of the 1990s". A crisis confronting urban policy makers in terms of human health and quality of life is urban poverty and the effects of the growing polarization in living

conditions and health consequences between groups within cities.¹ Rural urban migration is increasing. The population of Dhaka has increased from 1 million in 1960 to 9 million in 1996 and is increasing 300,000 per year. Half the population is less than 22 years old. About 45% are slum dwellers, many unemployed. Those able to find work average \$1 per day.²

Within Bangladesh, there are numerous projects, e.g., BRAC, Grameen Bank, and GSK, that are addressing the issues of rural poverty including health. In urban areas, there are also many examples of effective community delivery of family planning services. Dhaka is also privileged to have access to the excellent research designs of the ICDDR'B research in Zone 3. There are, however (KINTU), very few models that have succeeded in providing child survival services in the developmentally relevant framework envisioned at the 1978 WHO Conference on Primary Health Care envisioned at Alma Ata.

Members of this evaluation team have been involved in the planning, implementation, monitoring, or evaluation of Child Survival Projects in over 50 countries. Within that framework, the achievements of the DUICSP are superior and world class. While the quality of services and coverage are excellent, the "gold mine" (Sonar Khoni) of the DUICSP is the sustained effective partnerships of the community and the project. The DUICSP has developed an effective model which merits documentation, dissemination, and replication. Its major weakness from the perspective of the evaluation team is the lack of an effective family planning component.

In view of the September 1997 end of USAID funding for the project, the phasing out of a number of bilateral and multilateral support programs for urban health, and the initiation within the next 12 to 24 months of two new major sources of funding for urban health (the ADB loan for urban health and the USAID Urban Health Service Delivery Project), the potential for DUICSP to provide key strategic inputs to the evolution of the next generation of urban health delivery must not be lost. Maintaining momentum will require the following:

- 1) a project recognition that the project as currently constituted will terminate in September 1997.
- 2) a recognition of the value of the project both in terms of its benefits to the urban poor of Dhaka and as a working model that can play a key role in the evolution of urban health in Bangladesh
- 3) a commitment by WV to maintain project operation until new funding is on line
- 4) a strategy to identify bridge funding to ensure project continuity until new sources of funding are on line
- 5) evolution of project structure and services so as to be competitive for the funding sources that are coming on line (becoming a registered local NGO and adding family planning to its service delivery). This may involve splitting the project and incorporating the Mohammedpur area into WV/B's new Area Development Program and structuring the Kamalapur program to be competitive for USAID and or ADB funding.
- 6) an active open creative advocacy strategy which honestly presents the current project and utilizes "the mutually respectful negotiating process" described by Bossert to evolve a leadership role in community empowerment and service delivery in Dhaka

Recommendation 10: That World Vision 1) recognize the developmental relevance of its current project to the future of urban health in Bangladesh, 2) reconstitute DUICSP as a local NGO so as to have access to future funding, 3) explore bridge funding to ensure continuity until new funding is on line, 4) explore opportunities for funding through the DCC and its ADB loan and the new USAID Urban Service Delivery Project, and 5) that it consider splitting the project with incorporation of the Mohammedpur project into the proposed Dhaka Urban ADP and the promotion of the Kamalapur segment for urban service delivery.

Sustainability

Over the last 5 years USAID's Child Survival Projects have appropriately put increasing emphasis on issues of sustainability. However, when dealing with the urban poor, sustainability should in no way be construed that the poor with family incomes of \$1 per day can finance their ongoing health care. If that was the intent, it was unethical to initiate the projects. If on the other hand, sustainability is defined as the sustainability of benefits, then the recommendations described above are relevant and appropriate. In assessing the sustainability of the DUICSP, one must not only take into account the cost recovery system which is

¹ Stephens C. The urban environment, poverty and health in developing countries. H Pol Plan 1995, 10:109-121,

² Khan MA. Migration to Dhaka: A Disturbing Signal for the Country. The Independent. 13 August 1996, p 6.

providing 25% of the cost of drugs but the high number of volunteer hours being provided. In terms of the issue of developmental relevance outlined in the guidelines for the mid-term evaluation, the DUICSP exemplifies the ideal that other projects should emulate.

Recommendation 11: The final evaluation of the DUICSP be designed to capture project achievements in terms of progress toward objectives, cost, and developmental relevance. Explore video documentation.

Recommendation 12: USAID acknowledge its privilege of partnership in the DUICSP, that it officially convey to the project and its community partners its admiration for its achievements, and it share this effective humanitarian empowerment use of foreign assistance with USAID-Washington.

Finance

In Bangladesh, free health care is guaranteed in the Constitution. This provides a real challenge/obstacle to those providing care. DUICSP has a per visit fee for curative services. This covers an estimated 25% of the costs for medicines. While there is general agreement that MCH preventive services should be provided by government and its partners, debate is ongoing on the funding of curative services. Most projections indicated that free curative services are beyond the capacity of the country.

The finances of the field project are managed at the project level by three staff: the Administration and Finance Coordinator and two Finance Officers. Financial oversight of the project finances is provided by the Finance Officer of World Vision/Bangladesh and the Finance Officer at the WVRD headquarters office in Washington, D.C.

The total budget for the project is \$777,826. This number represents USAID funding of \$572,115 as well as the WV match of \$205,711 provided by WVRD and ODA. It should be noted that in the DIP, the WV match was projected to be \$215,552. However, following the DIP submission a decision was made by ODA to reduce their commitment by \$9,841 thereby decreasing the total WV match from 27% to the required 25%.

Spending for the first year of the project was \$280,298 while spending during the first three quarters of the second year has been \$171,373. Should spending continue at the present rate of \$18,943 per month through the end of this (and the MTE costs of \$15,000 be deducted), it is expected that project spending for the second year of the project will be \$240,544.00. Assuming current rate of spending throughout the remainder of the project, the current unspent funds estimated to be \$256,984 will be sufficient to cover project costs as well as the FE expenses.

It has been recognized that spending in the first year of the project is estimated to be \$40,000 higher than the second year. This is explained by the purchase of equipment during the first year of the project: overhead projector, computer, printer, portable generator, voltage stabilizer, and battery back-up systems.

In close comparison of the DIP budget to the current pipeline analysis (see Appendix X), it can be determined that minor shifts in the major line items have occurred. Explanation for these minor shifts are as follows:

- A. Personnel Costs: The personnel line was reduced \$65,837 in order to comply with the WV/Bangladesh salary scales which were lower than projected in the DIP.
- B. Travel: A portion of the personnel funds were transferred to this line item to cover the costs of domestic and international travel which were underestimated in the DIP budget.
- C. Consultancies: The consultancies line was reduced \$22,483. The sustainability workshop as described in the DIP has not been conducted. It is anticipated that WVRD/Headquarters budget will help to fund a consultancy on this topic.
- D. Procurement: The portion of the unused funds from the personnel line were transferred to the procurement section in order to fund the equipment purchased in the first year of the project as described above as well as the purchase of drugs, office supplies, and training materials which prices were higher than anticipated.
- E. Other Direct Costs - The unused funds from the consultancies were transferred to cover the other direct costs which were underestimated in the DIP budget.

Appendix I - Evaluation Team Members

Team Members

- Stanley O. Foster MD- Rollins School of Public Health of Emory University, Atlanta GA, USA
- Milton Amayun MD- World Vision Relief and Development, Helsinki, Finland
- Sri Chander MBBS - World Vision International - Singapore
- A.S.M. Kamal MBBS- Ministry of Health and Family Planning, Government of Bangladesh
- Mohammed Ashraf Uddin MBBS- Dhaka City Corporation
- Professor Md. Almas Uddin Howlander - DUCISP Coordinating Committee - Area A
- Ms Rigia Samad - DUCISP Coordinating Committee - Area B and C
- Shams el Arifeen MBBS - Urban MCH-FP Extension Project, ICDDR, Dhaka, Bangladesh
- Ms Zareen Khair PhD - Population and Health, USAID, Dhaka

Observers

- Victoria Graham - World Vision Relief and Development - Washington DC, USA
- Gunaachoimbolyn Nergui -World Vision - Mongolia

Coordinators

- Sylvester Costa - Project Director DUCISP
- Ratu Gopal Saha - National health Coordinator - World Vision Bangladesh

Appendix II - Schedule of Activities

Mid-Term Evaluation - DUICSP - August 15-27, 1996		
Date	Participants	Activity
15/9/96	Team Leader	Review HMIS
16/9/96	Team Leader	Review HMIS
17/9/96	Team&Staff	Organization meeting and Briefing by Staff
18/9/96	Team	Review Records - Finalize Field Procedures
19/9/96	Team	Field Visits Areas A&B 2 Health Facilities 2 Cluster meetings with Community Leaders
20/9/96	Team	Field Visits Areas C 2 Health Facilities 2 Cluster meetings with Community Leaders
21/9/96	Team & Staff	Share Field Findings Achievements and Obstacles
22/9/96	Team	Draft 1
23/9/96	Team	Draft 1 Cultural Program by the Community Volunteers
24/9/96	Team	Draft 2 and Preparation of Workshop
25/9/96	Team, Staff, MOH, NGOs	Workshop on Using Data to Improve Urban Health
26/9/96	Team, Staff, MOH, NGOs	Workshop on Using Data to Improve Urban Health Dinner with WV Management
27/9/96	Team	Debriefing with World Vision Management, USAID, ADB, NGOs,
28/9/96	Team Leader	Finalize and Distribute Report

Appendix III - Quotes from the Project Staff
What do you like most about your job?

- ▶ *"I like it that I have made a difference in the community."*
- ▶ *"Helping the pregnant women get assistance."*
- ▶ *"Being a part of helping to decrease the nightblindness in the homes I support."*
- ▶ *"I enjoy visiting the homes in my community, getting to know them, and helping them to live better lives."*
- ▶ *"I enjoy working with the community."*
- ▶ *"I like to work with the community."*
- ▶ *"Developing relationships with the community."*
- ▶ *"... the openness of the families to share their problems, providing support to the families is rewarding."*
- ▶ *"The succes of decreasing the deaths of children."*
- ▶ *"I like to see the number of deaths decrease and fewer cases of sickness."*
- ▶ *"I know I am doing something that is needed."*
- ▶ *"... the TBAs are always there to help."*
- ▶ *"I like that I am serving the poor."*
- ▶ *"I like to share with the people in my community about cleanliness, good health and the need of antenatal care for the women."*

Appendix IV

TABLE 2 - Child Survival Training Program Summary

Period	Trainees Job Title and #	Training Title	Training Topic	Hrs per person/ Total person hrs	Training Methods
Nov '94 & Dec '95	CVS (145) 2 batches	Preparation on High Potency VAC Administration	Concept on Night Blindness, Signs and Symptoms and its Prevention	4/1,160	Lecture, VIPP
Nov '94	CDWs/ Supervisors (15)	Lot Quality Assurance (LA)	Concept of Quality Assurance, paradigm shift, team approaches in improving QA of training, supervision, service delivery	24/360	Lecture, Groupwork, Field visit, Reporting
Dec '94	CVs (19)	Orientation on Sustainability Issues	Concept of sustainable increasing, planning and implementation	8/152	Lecture, VIPP
Jan '95	CDWs (32)	Training of Trainers	Learning and training difference of education, needs assessment, designing, curriculum setting, role of trainer, concept of health education and practice.	38/1,216	Lecture, Discussion, Groupwork, Role Play
Feb '95 July '95 Nov '95 Jan '96	CVs (103) 4 batches	Basic Training on Project Activities	Intervention of DUICSP, community analysis, motivation & communication, sustainability, duties and responsibilities, record keeping	38 (Each training period)/15,656	Lecture, Discussion, Filmshow, Game
Apr '95 July '96	CVs (57) 3 batches	Cooperative Training	Basic knowledge on Cooperative Savings and Credit	32 (Each training period)/5,472	Lecture, Discussion, Groupwork
June and July '95	TBAs (28) 2 batches	Maternal Care Services	Antenatal, natal and post natal care, care of the newborn and family planning	105 (Each training period)/5,880	Lecture, Discussion, Practical Demonstration, Filmshow
July '95	CVs (34)	Workshop on cultural performing art	Concept of different cultural components (i.e., Dance, Folksong, Gononatok, script writing, etc.)	8/272	Lecture, Groupwork, Role Play

Oct '95	CVs (135) Groupwise	Workshop on HMIS, VAC, use of health education guidebook	Concept on HMIS, causes of nightblindness and its prevention, community through Health Education	8/1,080	Lecture, Discussion, Practical Demonstration
Apr '96	CDWs (20)	Cooperative Training	Role of Credit Union and members, feasibility study on IGA, analysis on technical management of credit	16/320	Lecture, Discussion, Groupwork
Apr '96	CCC (23)	Workshop on Leadership and management	Project planning and identification of income generation activities in project area	24/552	Lecture, VIPP, Game, Groupwork
May '96	FMGs (42) 2 groups	Refreshers Course on project activities	Six killer diseases of EPI, Diarrhea, nightblindness, safe motherhood, ARI, family planning	8 (Each training period)/672	Lecture, Discussion, Role Play
May '96 June '96	NHCs (99) 4 batches	Workshop on project activities, sustainability, future plan	Project interventions, disease surveillance, job responsibilities, communication and motivation, community participation, sustainability	32 (Each training period)/12,672	Lecture, Discussion, Filmshow, Game
May '96	CVs (25)	Training of Trainers	Concept and difference of learning, training and education, training cycle, need, design, curriculum, schedule, etc.	38/956	Lecture, Discussion, Groupwork, Role Play, Practical Demonstration
July '96	CCC (41) 2 batches	Workshop on future plan to implement project activities	Discussion on project activities in light of CSP activities to make future plan, and role and duties of CCC	8 (Each training period)/656	Lecture, Discussion, Groupwork, VIPP

Appendix V
ANALYSIS OF CHILD DEATH DIAGNOSES FROM FORMS

PROJECT TOTALS

Diagnosis	0-28 days	29 days-11 mos.	12-23 mos.	24-59 mos.	TOTAL
Pneumonia	18	15	5	5	42
Asphyxia	12	1	0	1	14
Birth Trauma	1	0	0	0	1
Difficult Labor	1				1
NNT	1	2	0	0	3
Diarrhea	4	27	3	6	40
Prematurity	17	3	0	0	20
Measles	0	1	0	0	1
Malnutrition	3	7	2	2	14
Others	13	5	5	7	30
Stillborn					0
TOTALS	70	61	15	21	167

REVIEWER'S TOTALS

Diagnosis	0-28 days	29 days-11 mos.	12-23 mos.	24-59 mos.	TOTAL
Pneumonia	7	23	4	1	35
Asphyxia	5				5
Birth Trauma	5				5
Difficult labor	2				2
NNT	2				2
Diarrhea	2	32	4	1	39
Prematurity	34				34
Measles				1	1
Malnutrition		6	3	3	12
Stillborn	3				3
Others	8	4	1	6	19
Unknown	5	5			10
TOTALS	73	70	12	12	167

Notes:

All 167 forms completed between October 1994 and June 1996 were reviewed. Primary diagnoses were taken into consideration as the basis for listing under a category. Forms were more complete and more diligently filled out in 1996 than in 1995.

The listing under *unknown* includes cases where data do not point to a definitive diagnosis.

ANALYSIS OF DEATH IN WOMEN 15-45 years

Causes of Death	Number of Cases	
	<i>Project's Diagnosis</i>	<i>Reviewer's Diagnosis</i>
Eclampsia	1	1
Post-partum hemorrhage	3	2
Abortion	1	1
Cardio-Respiratory Failure		
-due to Guillain Barre	1	
-due to Acute Renal Failure	1	1
-unstated primary cause	2	2
PTB	2	2
Blood dyscrasias	1	1
Liver cirrhosis, hepatoma, hepatitis, etc.	3	6
Paraplegia and Severe Anemia	1	
Suicide	2	2
Accident		3
Unknown/Inconclusive		2
Others	7	2
TOTAL	25	25

Appendix VI

DHAKA URBAN INTEGRATED CHILD SURVIVAL PROJECT

PROJECT NUMBER : BGD-31-167785 (4049)

PIPELINE ANALYSIS

***Budget break-down for
three years (REVISED)***

YEAR	PERIOD COVERING	USAID	ODA	WVRD	PROJECT TOTAL IN US\$
YEAR-1	OCT '94 - SEP '95	127,874	78,711	66,027	272,612
YEAR-2	OCT '95 - SEP '96	211,541	18,000	22,806	252,347
YEAR-3	OCT '96 - SEP '97	232,700	0	20,167	252,867
TOTAL FOR THREE YEARS		572,115	96,711	109,000	777,826
PERCENT OF DIRECT COST		74%	12%	14%	100%
INDIRECT COST		114,423	0	21,800	136,223
GRAND TOTAL		686,538	96,711	130,800	914,049

***Expenditure Analysis
from 10/01/94 to 08/31/96***

FYs	USAID	ODA	WVRD	TOTAL (USD)
FY - 95	127,874	86,397	66,027	280,298
FY - 96 as of July '96	153,492	18,000	17,938	189,430
TOTAL	281,366	104,397	83,965	469,728
REMAINING FUND FOR 08/01/96 TO 09/30/97	290,749	(7,686)	25,035	308,098

BUDGET AND EXPENDITURE
1996 COUNTRY PROJECT PIPELINE ANALYSIS - REPORT FORM-A
WV BANGLADESH DHAKA URBAN INTEGRATED CHILD SURVIVAL PROJECT

FIELD	Total Agreement Budget (10/01/94 to 7/31/97)			Actual Expenditure To Date (10/01/94 to 8/31/95)			Project Expenditure Against Remaining Obligated Funds 08/01/96 to 09/30/97		
COST ELEMENTS	AID	PVO	TOTAL	AID	PVO	TOTAL	AID	PVO	TOTAL
A. PERSONNEL									
a. Technical	291,114	59,373	350,487	142,822	58,373	201,195	148,292	1,000	149,292
b. Administrative	102,744	31,872	134,616	51,372	29,872	81,244	51,372	2,000	53,372
c. Support/Clerical	4,226	1,780	6,006	2,113	780	2,893	2,113	1,000	3,113
SUB-TOTAL PERSONNEL	398,084	93,025	491,109	196,307	89,025	285,332	201,777	4,000	205,777
B. TRAVEL/PER DIEM									
a. Local Travel	16,009	5,975	21,984	8,003	3,975	11,978	8,006	2,000	10,006
b. International	5,900	3,928	9,828	2,950	1,928	4,878	2,950	2,000	4,950
SUB-TOTAL TRAVEL/PER-DIEM	21,909	9,903	31,812	10,953	5,903	16,856	10,956	4,000	14,956
C. CONSULTANCIES									
a. Local	3,096	1,838	4,934	1,548	1,338	2,886	1,548	500	2,048
b. Expatriate	14,508	16,530	31,038	7,254	15,630	22,884	7,254	900	8,154
c. Mid Term Evaluation	4,426	1,300	5,726	2,213	300	2,513	2,213	1,000	3,213
d. Final Evaluation/Prof.Serv	1,406	0	1,406	703	0	703	703	0	703
SUB-TOTAL CONSULTANCIES	23,436	19,668	43,104	11,718	17,268	28,986	11,718	2,400	14,118
D. PROCUREMENT									
a. Supplies	22,776	26,876	49,652	11,388	25,676	37,064	11,388	1,200	12,588
b. Equipment	9,112	10,269	19,381	4,556	9,269	13,825	4,556	1,000	5,556
c. Training	38,826	10,275	49,101	19,413	7,526	26,939	19,413	2,749	22,162
SUB-TOTAL PROCUREMENT	70,714	47,420	118,134	35,357	42,471	77,828	35,357	4,949	40,306
E. Other Direct Costs									
a. Repair & maintenance	4,552	3,744	8,296	2,276	3,244	5,520	2,276	500	2,776
b. Utilities & Rent	16,168	14,780	30,948	8,084	13,780	21,864	8,084	1,000	9,084
c. Communications	33,342	17,171	50,513	16,671	16,671	33,342	16,671	500	17,171
d. Baseline Survey	1,380	0	1,380	0	0	0	1,380	0	1,380
e. HMIS/KP Survey	2,530	0	2,530	0	0	0	2,530	0	2,530
SUB-TOTAL OTHER DIRECT	57,972	35,695	93,667	27,031	33,695	60,726	30,941	2,000	32,941
TOTAL FIELD DIRECT COSTS	572,115	205,711	777,826	281,366	188,362	469,728	290,749	17,349	308,098

REF.PIPE-2

BUDGET SUMMARY

DIRECT COST

	A.I.D	PVO	TOTAL	EXPLANATION
A. PERSONNEL	398,084	93,025	491,109	Reduced U\$ 65,837
B. TRAVEL/PERDIEM	21,909	9,903	31,812	Adjusted with the personnel
C. CONSULTANCIES	23,436	19,668	43,104	Reduced U\$ 22,483
D. PROCUREMENT	70,714	47,420	118,134	Adjusted with the personnel
E. OTHER DIRECT COSTS	57,972	35,695	93,667	Adjusted with the consultancies
TOTAL DIRECT COSTS	572,115	205,711	777,826	

Note:

Total budget variance $787667 - 777826 = 9,841$ due to budget cut down by ODA in FY 96.